

ABSTRACT OF THE DISCLOSURE

A braking system for vehicles, including at least one first brake circuit, and at least one second brake
5 circuit, in which the at least one first brake circuit and the at least one second brake circuit each have an electrical control circuit, which respectively has an electronic control unit and its own power supply device, and brake actuating devices which are activatable by the
10 electronic control units, at least one of the brake actuating devices being activatable by more than one of the electronic control units, in which the brake circuits are electrically activatable via a foot brake valve, and the foot brake valve has two electrical braking
15 transmitter devices which are each connected to the electronic control units so that they are DC-isolated.